

software as well.

Complementing powerful word processors and page-layout programs, there are off-the-shelf applications for statistical analysis, database manipulation, cross tabulation, drawing—all the work desktop computers were invented for.

And since all NeXT computers use Display PostScript for generating graphics and text on their screens, the crisp and clean images created by one application look just as crisp and clean when cut and pasted into another. Or printed on the NeXT 400 dpi Laser Printer. Or reproduced on professional typesetting equipment.

All of which means you can depend on your

NeXT computer to do at least one thing very well.

Anything.

"My major is Symbolic Systems. It's an interdisciplinary major that mixes computer science, psychology,

linguistics and philosophy. It's pretty diverse.

"I got my own NeXT machine in March of '91. I do a lot of paper writing as well as a lot of programming for class projects. NeXT was really the first computer that could do both, because of its ability to run multiple applications at once. With a Macintosh, I was working within the constraints of limited memory.

"I owned a Mac SE, but at school I started using Mac IIs, laser printers, stuff like that. After a while, I just couldn't use my SE any more after using a Mac II. I wanted

changed the computer nunity."

a new computer but Mac IIs looked like more of the same. I wanted something more integrated, so I could do papers and graphics and programming all on one

platform. The only real choice was the NeXT. It did all three, and did them very, very well.

"The NeXT interface gives you a feeling of responsiveness, and you don't have to wait for things to take 20 seconds to complete before you do something else. That really picks up your momentum when you're trying to get work done.

"A lot of other interfaces I've used are not as consistent, either. You have to deal with many more pieces of software that feel different.

"On a NeXT computer, it all feels the same."

ERIC LY, SENIOR,

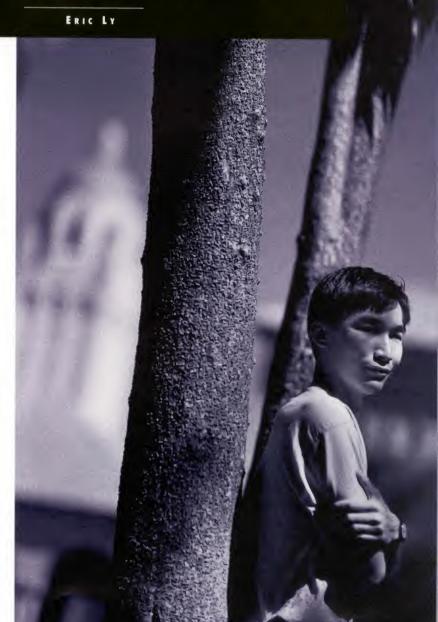
STANFORD UNIVERSITY, PALO ALTO, CALIFORNIA

The fact is, no other computers work so well across so many disciplines, because no other computers meet the diverse performance, simplicity and cost demands of campus life.

It's no accident.

As a company, NeXT was founded to develop powerful, affordable computer systems for teaching, learning and research. Although our mission has broadened over the last five years, and NeXT users are no longer exclusively on tenure tracks or in dorm rooms, our underlying goal remains the same: To break new ground in our field of expertise to help you do the same in yours.

"... you don't have to wait for things to take 20 seconds to complete before you do something else. That really picks up your momentum when you're trying to get work done."





And, from a technical standpoint, we liked NeXT's virtual memory and multitasking support.

"Only then did we discover Interface Builder for developing custom courseware. At first I thought nothing could make programming more productive, but Interface Builder does. We had eight students working the first summer who knew very little about C, NeXT or Interface Builder. They took NeXT's one-week training course and within three months were turning out very useful applications.

"In fact, we're now creating applications we probably

couldn't do on any other machine because we don't have the resources to invest in long-term software development.

"It's not just a question of time saved with the NeXT, it's a question of whether we could have even done the job."

JEFF FROYD, PROFESSOR,
DEPARTMENT OF ELECTRICAL
AND COMPUTER ENGINEERING,
ROSE-HULMAN INSTITUTE
OF TECHNOLOGY,
TERRE HAUTE, INDIANA

And while custom applications and software development may take many semesters to fully appreciate, all NeXT computers include at least one feature valued by novice and veteran users alike.

Completeness.

For example, every NeXT computer comes with all the necessary hardware and software to support thin and twisted-pair Ethernet. And CD-quality sound. And virtual memory. And unified imaging. All the desktop computing resources you need to tackle a project.

And all in one place.

"I guess the best metaphor for what we've been doing at Princeton is sound chemistry—studying the molecular structure of sound. We want to be able to get inside of it, look at it and do all sorts of interesting things.

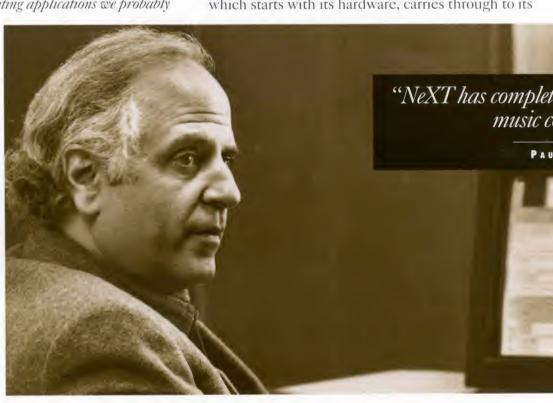
"NeXT was actually the first computer company not on to incorporate high-quality sound in its system, but also to hir a bunch of musicians to work on the machine.

"Now we not only have a machine to manipulate sound with, we also have a convenient system with which to listen to things. Before, we were often working with multiple systems and carrying tapes back and forth.

"And we're not the only ones to recognize this. For the first time, what Princeton is doing, what Stanford is doing, what UC San Diego is doing, it's all interchangeable. NeXT has completely changed the computer music community."

PAUL LANSKY, PROFESSOR, DEPARTMENT OF MUSIC PRINCETON UNIVERSITY, PRINCETON, NEW JERSEY

The completeness of a NeXT computer, which starts with its hardware, carries through to its



motivating our faculty to experiment with this new technology.

"One of the barriers to experimentation has always been the need for faculty to either become programmers, at the expense of their research, or to have access to extensive programming support. But one of the really nice things about NeXT is that people who aren't programmers are really delighted at how quickly they can put something together, like a browsing archive . . . how quickly they can access and change things.

"Usually we get a handful of faculty members each year who want to go beyond generic applications, such as word processors, spreadsheets or statistics packages, and incorpo-

writing, because when d into a job, employers lot of calculations.

nations.

rate computing into their courses by using their own ideas.

"Since we established our Scholar's Multimedia Workroom with NeXT workstations, faculty members developing classroom applications include a mathematics professor working on a modern algebra

tutor, a retired dance professor building archives for a dance history class, a music professor creating ear-training tools, and an English professor teaching a pilot sophomore core course called Critical Perspectives.

"We also have seven or eight undergraduates who are doing multimedia projects as the vehicle for presenting their senior theses materials.

"Our expectation is that this year there will be twice the usual number of faculty members interested in putting together experimental multimedia classroom projects on the NeXTs."

CAROL LENNOX, DIRECTOR, ACADEMIC COMPUTING AND CAMPUS NETWORKS, LECTURER, INTERDISCIPLINARY COMPUTER SCIENCE, MILLS COLLEGE, OAKLAND, CALIFORNIA

"In fact, we're now creating applications on the I we probably couldn't do on any other machine be we don't have the sort of resources to invest in long-term software development."

JEFF FROYD

Another feature that encourages experimentation is Interface Builder, a key component of NeXTstep—the only complete object-oriented operating system and development environment available on a desktop computer.



Using object-oriented

programming, Interface Builder allows you to assemble your program's entire interface without writing a single line of code. Instead, you click and drag objects, such as text windows, buttons and sliders, from a palette of both pre-defined objects and objects you've created or received from colleagues.

The result is a process that's three to ten times faster than traditional software development methods, yet eminently compatible with the knowledge and skill base on your campus. And one you can put to work now.

"Several years ago we had an idea for a freshman curriculum that, instead of presenting topics like calculus, physics, chemistry, computer science, engineering graphics and engineering design in separate courses, would present all that material in a single, integrated course sequence.

"We needed a computer to support symbolic manipulations as well as numeric and graphic manipulations. And it had to be friendly so students wouldn't be intimidated about exploring things.

"The two leading contenders were Macintosh and NeXT because they offered Notebook interfaces to Mathematica. But we went with the NeXT because it supported networking and multimedia mail, both of which encouraged communication.



One example of its versatility is the ease with which a NeXT computer can move between the research lab and the lecture hall, bringing new ideas to class in a more intriguing way.

By encouraging students to work on parts of a problem simultaneously, a NeXT computer serves to challenge young imaginations. Not limit them.

"We use our NeXT computers, and Mathematica and WriteNow, for laboratory assignments. In our lab, which we purchased through a grant from the Instrumentation and Laboratory Initiative of the National Science Foundation, we give homework projects that

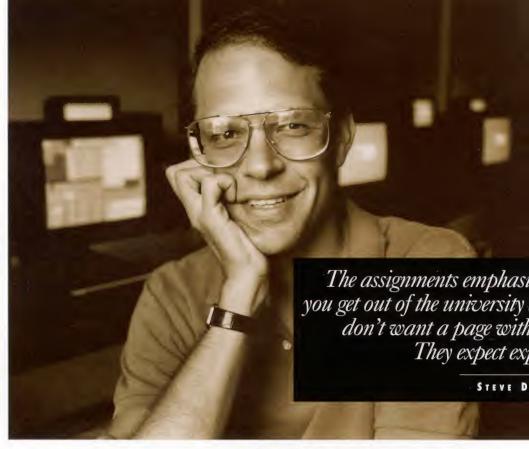
are one-page descriptions of a physical situation. We give some derivations and developments, and break the problem down into steps.

"Students typically work with one window open with Mathematica, and another with, say, WriteNow, where they're writing up reports. I say reports, but they're really small term papers. The assignments emphasize writing, because when you get out of the university and into a job, employers don't want a page with a lot of calculations. They expect explanations.

"We chose NeXT because what we needed was a workstation with a windowing environment, a graphical user interface, UNIX underneath and networking capabilities-to allow us to grow beyond the confines of the room we're in. And the bundled Mathematica saved us hundreds of dollars on each machine. Plus, we didn't see MS-DOS® or Macintosh growing into the future.

"One of the interesting things we discovered after we put the computers in the labs was the ease of teaching. In our orientation we show students everything from logging in to running Mathematica. We show them how to make a quick graph, paste it into WriteNow and print out the results. All that takes an hour. They have one or two pages that they've created, and they know how to do something useful. That's pretty remarkable.

"Last semester we ran about 75 students through the lab, all of them more or less novices. They pounded away on the machines about five hours a day, five days a week, 16 weeks in



succession. And we had no crashes, no network foul-ups, nothing.

"That's pretty remarkable, too."

STEVE DUNBAR, ASSOCIATE PROFESSOR OF MATHEMATICS, DEPARTMENT OF MATHEMATICS AND STATISTICS, University of Nebraska, Lincoln, Nebraska

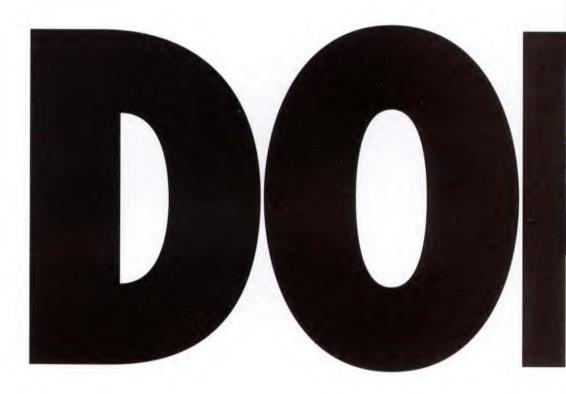
Thanks to our easy-to-use graphical interface, it r longer takes technical wizardry to bring the power of a UNIX workstation to bear on "ordinary" applications.

By providing features like 3-D graphics, 32-bit co and networking through the familiar point-and-click interface of a personal computer, NeXT makes a work station far less intimidating.

"One of the really nice things a people who aren't programmers are rea they can put something t

And makes technology-shy faculty members far more curious.

"One of our goals at Mills has been to get our faculty involved in classroom applications. So, in 1988, Mills deci to invest in an advanced workstation lab that would provi very high-quality multimedia capabilities as a means of



After all, there isn't any choice to make. Not when the best of both computers is easily accessible from the same keyboard and mouse.

One look at a NeXT computer and you'll find performance features you'd expect in a Sun or other workstation designed for science, engineering and mathematics applications.

There's a 15 MIPS CPU plus at least 8 megabytes of RAM and 105 megabytes of hard disk storage. More than enough speed and headroom to support all the features of the UNIX\* operating system—like multitasking, a robust software development environment and on-board support for UNIX's rich communications facilities.

But you'll also discover an easy-to-use, yet sophisticated graphical user interface, built-in CD-quality sound and more than 30 bundled applica-



# NOW THAT YOU DON'T HAVE TO CHOOSE, HERE ARE YOUR CHOICES.

When you buy a NeXT computer, you don't have to compromise on the kind of technology you want. Or on what you have to spend to get it.

If all you need is a stand-alone system for your office, home or research project, choose the NeXTstation. It incorporates all the features of a NeXT computer into a compact, affordable package. And its low cost and high reliability also make it the perfect computer for teaching labs.

The NeXTstation Color combines the affordability of the NeXTstation with crisp, clear, 16-bit

color. It's also ideal as an office stand-alone system, or for projects like IC design, molecular modeling, visual art history databases anywhere true-to-life color is critical to the quality of your work.

The NeXTcube computer is an excellent server for a distributed network of NeXTstations. With room for up to 64 megabytes of RAM and 2.8 gigabytes of hard disk storage, it can easily accommodate the most memory-hungry applications.

It can also be upgraded to our NeXTdimension computer. With its accelerated 32-bit color board, the NeXTdimension offers state-of-the-art color capabilities

that rival far more expensive computers in graphics, full-motion video and animation applications.

These are just some of the features that make NeXT computers attractive. Equally important are the features other computers lack.

See for yourself. For information on how NeXT computers outperform other platforms everywhere, from desktops to lab benches, call 1-800-848-NeXT. Or contact your local campus reseller.

We'll leave that choice up to you.



# **NeXTstation**

Motorola 68040 25 MHz
Motorola 56001 25 MHz Digital Signal Processor
8 MB RAM expandable to 32 MB
3.5-inch floppy disk drive, supports 720 KB, 1-44 MB
and 2,88 MB floppy disk
105 MB hard disk drive, optional 200 MB and
400 MB hard disk drives
Built-in thin and rwisted pair Ethernet
MegaPixel Display (monochrome)
Kerbourd and mouse



# **NeXTstation Color**

16-bits-per-pixel color, nucluding 4-bits-per-pixel alpha channel, Motorula 68/4/225 MHs
Motorula 56/4/125 MHz Digital Signal Processor
12 MB RAM expandable to 32 MB
3.5-meh floppy disk dreve, supports 72/4 KB,
1.44 MB and 2.88 MB floppy disk
1/5 MB hard disk dreve, spinonal 2/4 MB
and 4/4 MB hard disk dreves, Built-in thin and
twisted paw Ethernet, MegaPixel 17-inch Display
or MegaPixel 21-inch Display,
Kebboard, mouse and Sound Box



# NeXTcube

Matorola 68040-25 MHz
Matorola 56001-25 MHz Digital Signal Processor
8 MB RAM expandable to 64 MB
3.5-uch floppy disk drive, supports 720 KB,
1.44 MB and 2.88 MB floppy disks
105 MB hard disk drive, optional 200 MB, 400 MB,
660 MB, 1.4 GB and 2.88 GB hard disk drives
Optional 256 MB optical disk drive
and optional CP-ROM disk drive
Built-in thin and twisted pair Ethernet
MegaPixel Display (monowhrome)



# NeXTdimension

(add-in color board for NeXTrube)
32-bits-per-pixel color, including
8-bits-per-pixel alpha channel
Intel® 800-33 MHz RINC privessor
8 MB RAM expandable to 32 MB
For use with MegaPixel 17-inch Display
or MegaPixel 21-inch Display
and Sound Böx